

5. (Amended) An isolated nucleic acid molecule which encodes a naturally occurring allelic variant of a *Corynebacterium glutamicum* polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the nucleic acid molecule hybridizes to the complement of a nucleic acid molecule consisting of SEQ ID NO:1 in 6X SSC at 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 50-65°C, and wherein said nucleic acid molecule encodes a polypeptide having 6-phosphogluconolactonase activity.

c3
6. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence which has at least 90% identity with the nucleotide sequence of SEQ ID NO:1, wherein said nucleic acid molecule encodes a polypeptide having 6-phosphogluconolactonase activity, or the complement thereof.

7. (Amended) An isolated nucleic acid molecule comprising a fragment of at least 15 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or the complement thereof.

8. (Amended) An isolated nucleic acid molecule which hybridizes to the nucleic acid molecule of any one of claims 1 and 4-7 in 6X SSC at 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 50-65°C.

c4
9. (Amended) An isolated nucleic acid molecule comprising the nucleic acid molecule of any one of claims 1 and 4-7 and a nucleotide sequence encoding a heterologous polypeptide.

c5
15. (Amended) The host cell of claim 12, wherein the expression of said nucleic acid molecule results in the production of a fine chemical from said cell.

c6
25. (Amended) A method for producing a fine chemical, comprising culturing a cell containing a vector of claim 11, such that the fine chemical is produced.

c7
29. (Amended) The method of claim 25, wherein said cell is selected from the group consisting of: *Corynebacterium glutamicum*, *Corynebacterium herculis*, *Corynebacterium lilium*, *Corynebacterium acetoacidophilum*, *Corynebacterium*

C7
cont
acetoglutamicum, *Corynebacterium acetophilum*, *Corynebacterium ammoniagenes*,
Corynebacterium fujiokense, *Corynebacterium nitrilophilus*, *Brevibacterium*
ammoniagenes, *Brevibacterium flavum*, *Brevibacterium healii*, *Brevibacterium*
ketoglutamicum, *Brevibacterium ketosoreductum*, *Brevibacterium linens*, *Brevibacterium*
parafinoliticum, and those strains set forth in Table 3.

C8
34. (Amended) A method for producing a fine chemical, comprising
culturing a cell whose genomic DNA has been altered by the inclusion of a nucleic acid
molecule of any one of claims 1 and 4-9.

36. (Amended) A host cell comprising the nucleic acid molecule of SEQ
ID NO:1, or the complement thereof, wherein the nucleic acid molecule is disrupted, and
wherein said nucleic acid molecule encodes a polypeptide having 6-
phosphogluconolactonase activity.

C9
37. (Amended) A host cell comprising the nucleic acid molecule of SEQ
ID NO:1, or the complement thereof, wherein the nucleic acid molecule comprises one or
more nucleic acid modifications, and wherein said nucleic acid molecule encodes a
polypeptide having 6-phosphogluconolactonase activity.
